

# METHODOLOGY FOR CALCULATING PROTECTION SEVERITY AND ESTIMATING PEOPLE IN NEED (PiN)

Version 01.07.2026



Global Protection Cluster

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# 1. Introduction & background



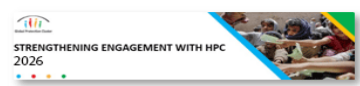
In the face of increasingly complex and escalating humanitarian and protection crises worldwide, accurately assessing the severity of protection risks and identifying the people most in need has become more crucial than ever. This [Methodology for calculating protection severity and estimating people in need \(PIN\)](#) for the Humanitarian Needs and Response Plan (HNRP) provides the comprehensive Protection Cluster methodology. It has been developed by the GPC, through extensive field consultations and tailored to adapt to the unique challenges and complexities of various crisis environments.

This guidance is a unified approach adopted by the Protection Cluster to ensure a consistent and thorough protection analysis across different contexts. It presents a step-by-step process, that protection cluster coordination and information management staff must consider for the calculation of the severity and People in Need (PiN), across all areas of response.

This document is developed for **Information Management staff** and should be read in complementarity with [Protection cluster approach to joined-up protection analysis](#) that provides the overarching protection analysis flow and guide on the strategic approach and planning for Protection cluster coordination team. The guidance is supported by a package of tools and resources, and set of webinars and other resources that can guide the understanding, available in the Global Protection Cluster website at:



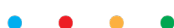
[INFORMATION MANAGEMENT & ANALYSIS TOOLBOX](#)



[STRENGTHENING ENGAGEMENT WITH THE HUMANITARIAN PROGRAMME CYCLE LEARNING SERIES](#)

The package of tools supporting this guidance include:

- < Severity and PIN Calculation Tool (HH, Area and data poor scenario)
- < Severity and PiN Check Tool
- < Target Prioritization Matrix Tool
- < Iterative HNRP Core Indicators Databank
- < Risk Prioritization Tool
- < Predictive model to calculate people exposed to protection risks tool and methodology



## 2. Key definitions



### PEOPLE AFFECTED (IASC, 2016)

Includes all those whose lives have been impacted as a direct result of the crisis. This figure is often the first available after a sudden onset emergency and often defines the scope or boundary of a needs assessment. It does not, however, necessarily equate to the number of people in need of humanitarian aid; it should not be confused or used interchangeably with the category People in Need. Characteristics of the category People Affected must include:

- being in close geographical proximity to a crisis.
- physically or emotionally impacted, including exposed to a human rights violation/protection incident.
- experiencing personal loss or loss of capital and assets as a direct result of the crisis (family member, house/roof, livestock, or any other asset), being faced with an immediate threat from a crisis.

### PEOPLE IN NEED (IASC, 2016)

People in Need (PIN) are a sub-set of the population affected and include those members: a) whose physical security, basic rights, dignity, living conditions or livelihoods are threatened or have been disrupted, AND b) whose current level of access to basic services, goods and social protection is inadequate to-establish normal living conditions with their accustomed means in a timely manner without additional assistance.

### PROTECTION RISKS (PAF 2021)

Actual or potential exposure of the affected population to violence, coercion, or deliberate deprivation. For the scope of Protection Cluster analysis, protection risks correspond to the intensity and damage or harm (violence, coercion, or deliberate deprivation) affecting an individual or group of individuals.

### PROTECTION RISKS SEVERITY

Protection Risks severity is an overall estimation of the severity of 15 protection risks in a specific geographical location based on value judgement elicitation combined with a convergence of evidence analysis.

### PEOPLE EXPOSED TO PROTECTION RISKS

People exposed to protection risks are a subset of people affected by the crisis whose life is directly affected by current violence, coercion or deliberate deprivation in the form of protection risks severity.

### PROTECTION NEEDS

Protection needs refers to the gap or discrepancy that populations are experiencing in relation to the ability to move and access to public spaces, ability to participate in safe practices and activities and access to rights and services. *“They arise when victims of violations are unable to defend their basic interests and no longer benefit from the basic respect they are entitled to from authorities and other actors who have control over them or on whom they depend” (PAF, 2021).*

### PROTECTION NEEDS SEVERITY

Protection needs severity represents the degree of protection needs resulting from the exposure to protection risks in relation to the ability to move and access to public spaces, ability to participate in safe practices and activities and access to rights and services.

### PEOPLE IN NEED OF PROTECTION

Individuals, across all population groups and considering their age, gender and diversity, exposed to protection risks in the areas affected: 1. whose safety constraints limit their ability to move freely and access public spaces, 2. who cannot perform practices that ensure physical, emotional, psychological, and social safety, such as social



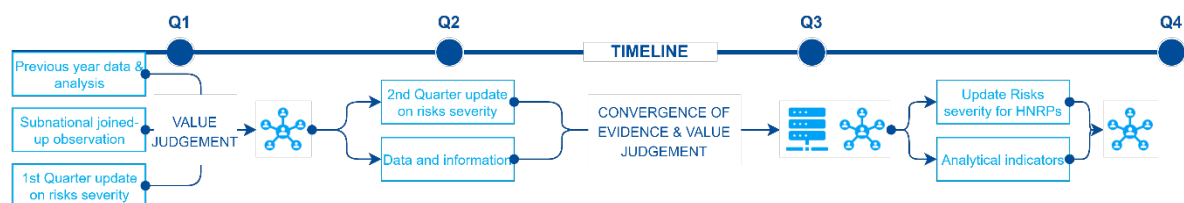
interaction, educational pursuits, economic engagement, and healthcare, and 3. who are deprived of their rights, including adequate access to essential services and justice, considering their age, gender, and diverse needs.

### 3. Methodological approach

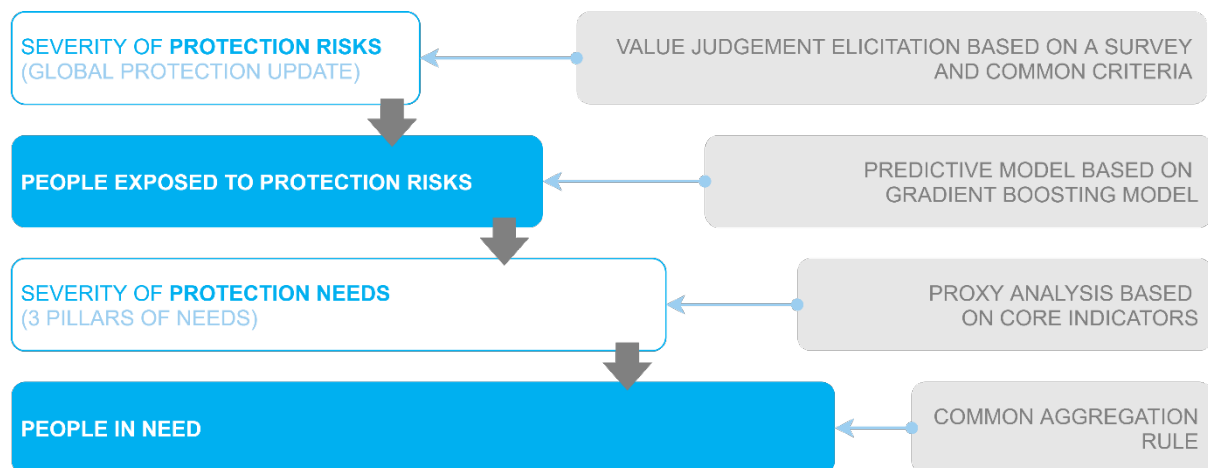
The methodological approach to calculate protection severity and the estimated people in need is grounded in the analytical approach described in the [Protection Cluster joined-up approach to protection analysis](#). The analytical approach clarifies the overall framework and process of how the severity of protection risks and severity of protection needs are interconnected, and the overall rationale behind the role of the Protection Cluster in a coordinated approach to analysis.

The severity of protection risks is assessed at the Global Protection Update (GPU) stage at least once a year (June – closer to the HPC). Although, given the capacity on the ground, it is recommended that if the operation has the capacity and resources, then this assessment should be carried out every quarter of an year building on existing protection data. The assessment of protection risks severity feeding September GPU directly contributes to the Humanitarian Needs and Response Plans (HNRP) data analysis process and calculations. This timing is crucial because the assessment provide essential data that informs the overall humanitarian response planning process, together with other primary and secondary data such as MSNA, key informant, community-based assessment(s) and others.

This process involves value judgement elicitation and convergence of evidence. Value judgement elicitation is a method where experts provide their insights and judgments based on their experience and knowledge. Convergence of evidence involves cross verifying these judgments with available data and evidence to ensure accuracy and reliability. These scores help in objectively evaluating the importance and relevance of each protection risk.

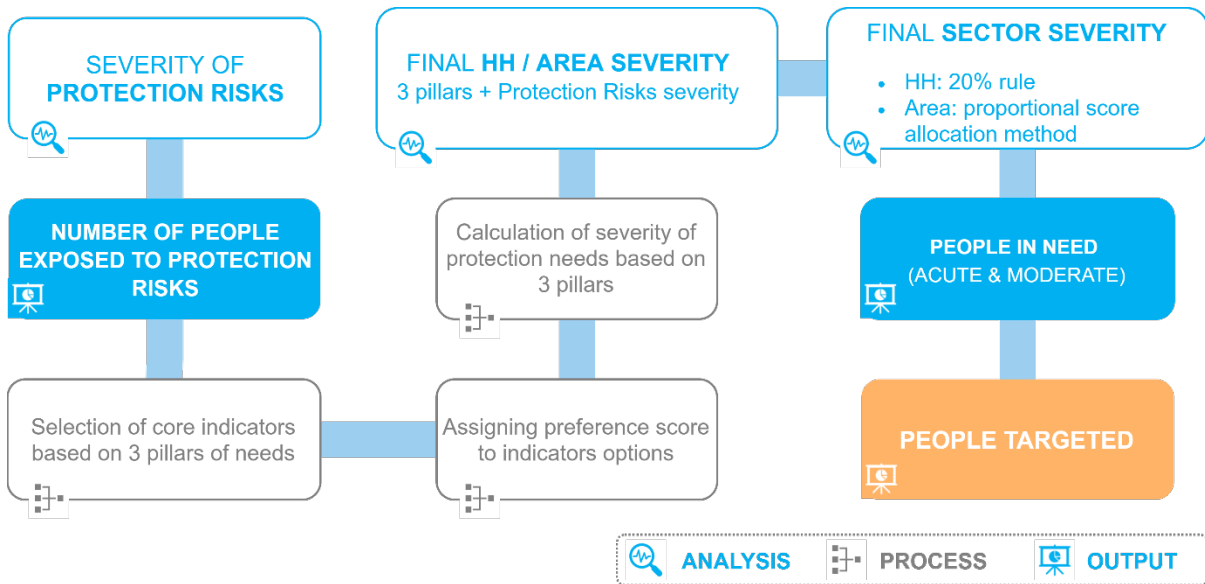


The severity of protection risks is instrumental in determining the number of people exposed to various risks, categorized by different population groups. This is achieved using a predictive model developed by the Global Protection Cluster (GPC). For more information on the model and use of predictors, see here the [methodology document](#).



### 3.1. Process

The data analysis process is carried out by adapting the **implementation process of the joined-up approach to protection analysis**<sup>1</sup> to the conditions and capacities in a given country. During the data analysis continuous consultation with response type and partners, is advised in order to identify collectively the best strategic approach.



### 3.2. Protection Risks severity

The protection risk severity is the primary analytical outputs in the process of calculating the HNRP severity and PIN. This severity allows an early understanding of the situation of protection ahead of the HNRP process, to inform the scope of the HNRP and anticipate data and information needs required for the provision of evidence during the corresponding JIAF 2.0 phase.

The **Protection Risks Prioritization Tool**<sup>2</sup> is a vital resource in assessing the severity of protection risks in various locations. This tool employs a structured approach to evaluate and prioritize different risks, ensuring that the most critical threats, their consequences and the capacities to mitigate them are properly identified.

#### 3.2.1 STEP 1: Listing Protection Risks and Locations

The first step involves **listing all the 15 protection risks** jointly defined by the Global Protection Cluster and the Response Types<sup>3</sup>. These risks provide a comprehensive overview of various forms of violence, coercion and deliberate deprivation that impact directly the population in all types of crises. In addition to listing these risks, it's essential to **identify the locations at the subnational level** where these risks are present with the support of the Tool, hereby ensuring a more detailed and localized assessment as well as following the HNRP scope of analysis.

The tool offers the possibility to determine the Admin level in the country, depending on capacities and strategic opportunities. Choosing the same admin level as the HNRP data analysis allows for a stronger comparison and simplification of the process.

<sup>1</sup> See [Protection Cluster approach to joined-up protection analysis](#), p.6

<sup>2</sup> See [Protection risks prioritization tool – basic version](#)

<sup>3</sup> See [Protection Risks Explanatory Note](#)

### 3.2.2 STEP 2: (optional): Assigning Weights to Protection Risks

Once the risks and locations are listed, the next step (optional) is to **assign weights or preference scores to each of the 15 protection risks**<sup>4</sup>. These weights reflect the relative importance of each risk in affecting the population in a context. For example, as illustrated in the image below, GBV and Theft & Eviction have been assigned a weight of 3, indicating their high significance. Conversely, protection risks related to the Presence of Mines or Forced recruitment might have a weight of 2, reflecting a slightly lower, yet still critical, level of relative relevance. Less severe issues, like protection risks related to Legal Identity, could be assigned a weight of 1. This is just an example, and the tool must be adapted in each country jointly by Coordinators and IMs.

WEIGHTED SCORE				1	2	3	1	2	1	3
ADM1_PCODE	ADM1_EN	ADM2_PCODE	ADM2_EN	DISINFORMATION AND DENIAL OF ACCESS TO INFORMATION	FORCED RECRUITMENT AND ASSOCIATION OF CHILDREN IN ARMED FORCES AND GROUPS	GENDER-BASED VIOLENCE	IMPEDIMENTS AND/OR RESTRICTIONS TO ACCESS TO LEGAL IDENTITY, REMEDIES AND JUSTICE	PRESENCE OF MINE AND OTHER EXPLOSIVE ORDNANCE	PSYCHOLOGICAL ABUSE OR INFLECTED DISTRESS	THEFT, EXTORTION, FORCED EVICTION OR DESTRUCTION OF PERSONAL PROPERTY
SS00	Abyei Administ	SS0001	Abyei Region	Phase 1 (Very Low)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 1 (Very Low)	Phase 1 (Very Low)	Phase 2 (Low)	Phase 2 (Low)
SS01	Central Equato	SS0101	Juba	Phase 1 (Very Low)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 1 (Very Low)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 3 (Medium)
SS01	Central Equato	SS0102	Kajo-keji	Phase 2 (Low)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)	Phase 3 (Medium)	Phase 3 (Medium)
SS01	Central Equato	SS0103	Lainya	Phase 2 (Low)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)	Phase 3 (Medium)	Phase 3 (Medium)
SS01	Central Equato	SS0104	Morobo	Phase 2 (Low)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)

### 3.2.3 STEP 3: Assessing Severity by Location

After assigning weights, the next step is to **assess the severity of each protection risk for each location**. The tool provides a dropdown menu with options ranging from phase one (very low severity) to phase five (very high severity). This allows for a granular evaluation of each risk in every location.

The assessment is carried out through value judgement elicitation, by sharing the tool with subnational key experts and organizing one or multiple joint sessions for expert review. The process and modalities must be defined in country, given the different conditions of security and safety which may require different adaptation. For example, the tool can be shared in the form of a survey with multiple partners or, in conditions where this may be causing harm, the tool can be used by subnational PC coordination as a reference to gather multiple partners inputs through safer modalities.

A detailed set of qualitative severity criteria for each of the 15 protection risks are used to guide the value judgement, as outlined in the **Protection Cluster joined-up approach to protection analysis**<sup>5</sup>

### 3.2.4 STEP 4: Calculating and Normalizing Scores

The tool automatically calculates a **weighted score of 15 protection risks for each location**. These scores are normalized to fit within a scale of 1 to 5. This normalization is crucial as it standardizes the severity scores across different locations, enabling a comprehensive severity map for the entire country. This map is based on the normalized scores, which align with our severity scale.

WEIGHTED SCORE				2	3	WEIGHTED SCORE	NORMALIZED SCORE
ADM1_PCODE	ADM1_EN	ADM2_PCODE	ADM2_EN	TRAFFICKING IN PERSONS, FORCED LABOUR OR SLAVERY-LIKE PRACTICES	UNLAWFUL IMPEDIMENTS OR RESTRICTIONS TO FREEDOM OF MOVEMENT, SIEGE AND FORCED		
SS00	Abyei Administ	SS0001	Abyei Region	Phase 1 (Very Low)	Phase 2 (Low)	61.00	2.80
SS01	Central Equato	SS0101	Juba	Phase 2 (Low)	Phase 1 (Very Low)	54.00	2.39
SS01	Central Equato	SS0102	Kajo-keji	Phase 1 (Very Low)	Phase 3 (Medium)	75.56	3.51

### 3.2.5 STEP 5: Generating Severity Maps and Rankings

The tool automatically generates **severity scores for each individual protection risk**, following the same method of calculating and normalizing the weighted scores, and provide an automatic **ranking of the 15 protection risks**

<sup>4</sup> Assigning weights does not reflect a hierarchy between protection risks or pre-determine what protection risks are more important. This step should be carried out together with the PC and Response Type coordination teams to ensure that the measurement is context-based.

<sup>5</sup> See [Protection Cluster approach to joined-up protection analysis](#), p.5

from 1 to 15 based on their weighted scores. It additionally generates automatically the related maps of severity, in the form of a **severity map at a county level**, showcasing the overall score for all 15 protection risks, as well as **15 individuals maps** that provide the level of severity of each of the 15 protection risks.

The following images provide examples of the automatically generated maps.

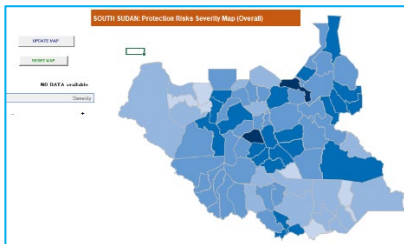


Figure 1: Protection Risks severity Country

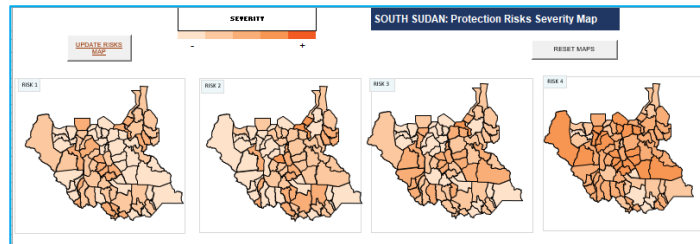


Figure 2: Protection Risks severity per risk

### 3.2.6 STEP 6: Feeding Data into the HNRP Stage

The **top five prioritized risks and their severity scores** are subsequently fed into the HNRP data analysis process.

This is particularly useful in scenarios where data is unavailable at the household or area level. In such "no data" scenarios, these prioritized protection risks, whether the top five or any other selected risks, guide the calculation of people in need. This method ensures that even in the absence of specific data, the severity of protection risks can still inform critical decision-making processes.

The use of this value in HNRP is described below.

PROTECTION CLUSTER
The <b>protection risks severity</b> is used as a control severity in the revision of the HNRP needs severity

## 3.3. People exposed to Protection Risks

### 3.3.1. STEP 1: Use of the Prediction Model

Once the severity of protection risks is defined, the results are fed into the dedicated **prediction model**<sup>6</sup> developed in R. This model uses several predictors, including the identified protection risks severity scores, conflict-related events. The model builds on core predictors and provides options to add context specific predictors and datasets. These predictors are essential in estimating the total number of people exposed to protection risks (PER).

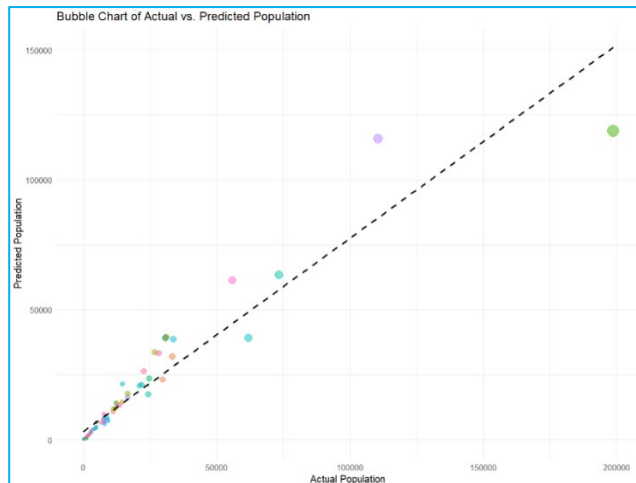
### 3.3.2. STEP 1: Prediction Model for PER calculation

The prediction model is currently offline, and support for calculating the People Exposed to Risk (PeR), categorized by population groups, is being provided directly by the GPC to all operations, as has been the case in recent years. Country teams receive technical guidance and assistance throughout the process to ensure consistent and reliable PeR calculations. The model is planned to be integrated into the GPC AI platform, the development of which has recently started. Once completed, the platform will enable country operations to access the model more easily and generate the required outputs in a streamlined manner. The visuals support the understanding of the prediction against the actual population. As a way of example, the image depicts how well the predicted numbers fit by location, illustrating the model's accuracy through the best-fit line.

<sup>6</sup> The predictive model uses Gradient Boosting Model, and it is developed in R, using predictors such as protection risks severity scores, and any other relevant contextual data.

In summary, the Protection Risks Prioritization Tool and the subsequent prediction model have been introduced to better streamline the understanding of protection risks, to devising strategy and planning processes to guide their mitigations.

By systematically listing, weighting, and assessing protection risks, and introducing predictive analytics, the Protection Cluster can better inform decisions and prioritization to ensure protection of the most vulnerable populations effectively.



### 3.4. Protection Needs Severity


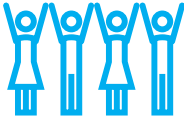

Using a unified approach protection needs are identified through protection analysis. The framework builds upon the analysis and understanding of protection risks that people affected by conflict and disaster face. The specific **Protection Cluster methodology to calculate HNRP severity and PiN therefore integrates both protection risks and protection needs based on 3 core pillars of need**. This means that the PC evaluates the severity of protection needs by examining not only the presence and extent of specific protection risks but also how these risks interplay with the broader needs of the affected population. The three pillars of needs, which encompass ability to move and access to public spaces, ability to participate in safe practices and activities and access to rights and services, are used in conjunction with the risk severity score to provide a comprehensive assessment.

**The different Response Types now use the same methodology and tools for calculating severity and PiN ensuring a fully harmonized and consolidated approach across all areas of protection**. They make use of the same three pillars of needs to determine the severity of protection needs within their specific area of focus, hereby ensuring a harmonized approach to definition of needs across all areas of protection.




Protection risk severity is incorporated during the Severity Expert Judgement (EJ) review step. If the protection risk severity for a given area is one point or more higher than the calculated needs severity, it is recommended to adjust the overall needs severity accordingly. This dual consideration allows the Protection Cluster to produce a more nuanced and holistic understanding of protection needs at the household or area level. For further guidance, users should refer to the Household and Area-Level Tool guidance, particularly Section 5.3 on the Severity EJ sheet explanation.

### 3.4.1. Pillars to define protection needs

The Protection Cluster use a 3-pillar approach to define the People in Need. The pillars have been defined drawing upon the conditions of safety, integrity and dignity of the population, to guide the identification of the most vulnerable population.

<p><b>PILLAR 1</b></p> 	<p><b>PILLAR 2</b></p> 	<p><b>PILLAR 3</b></p> 
<p><b>ABILITY TO MOVE AND ACCESS TO PUBLIC SPACES</b></p>	<p><b>PILLAR 2: ABILITY TO PARTICIPATE IN SAFE PRACTICES AND ACTIVITIES</b></p>	<p><b>PILLAR 3: ACCESS TO RIGHTS AND SERVICES</b></p>
<p><b>Individuals, across all population groups, ability to move freely and access to public spaces is not limited by physical, emotional, psychological, and social safety constraints</b></p>	<p><b>Individual, across all population groups, are able to participate in social, educational, economic and healthcare safe practices and activities of their choice.</b></p>	<p><b>Individuals, across all population groups, have access to services and justice, proportionate to age, gender, and diversity needs.</b></p>

Three proxy indicators corresponding to each dimension are used consistently by the Protection Cluster across all countries, to have a common and comparable approach in the definition of PIN. A set of core sub-indicators per pillar is provided, together with their interrelation with the 15 protection risks, to provide a harmonized framework and more consistently present the situational analysis and linkages with the most critical protection risks identified because of the joined-up protection analysis. This approach ensures the use of sub-indicators<sup>7</sup> that are appropriate for the specific protection situation in each crisis.

<p><b>PILLARS</b></p>	<p><b>INDICATOR</b></p>	<p><b>SUB-INDICATORS (Examples)</b></p>
	<p>Proportion of individuals, across all population groups, whose ability to move freely and access to public spaces is limited by physical, emotional, psychological, and social safety constraints, considering their age, gender, and diversity.</p>	<p>Protection incidents</p> <p>Areas avoided by individuals, including women, girls and children</p> <p>HHs / areas affected by explosive ordnance</p> <p><b>Others.</b></p>
	<p>Proportion of individuals, across all population groups, unable to participate in social, educational, economic, and healthcare activities safe practices and activities, considering their age, gender, and diversity.</p>	<p>Areas impacted by presence of armed groups</p> <p>Access to land or resources for their livelihoods</p> <p>Child early and force marriage (CEFM)</p> <p><b>Others.</b></p>
	<p>Proportion of individuals, across all population groups, lacking adequate access to essential services and justice, considering their age, gender and diversity needs.</p>	<p>Areas/households without meaningful access to health services</p> <p>Proportion of the population without adequate access to official law enforcement</p> <p>Areas without meaningful access to MHPSS, specialized reproductive health, child protection or other services</p> <p><b>Others.</b></p>

<sup>7</sup> The table is a non-exhaustive list of examples. In each context, the Protection Cluster coordination team should identify the most relevant indicators from the 9 CORE indicators included in the MSNA questionnaire. Where an MSNA is not conducted, contextually appropriate indicators, that measure the same protection needs dimension or risk, should be selected based on the available data and information landscape. For further guidance please look at the [most updated available databank](#)

### 3.4.2. Core needs indicators

Protection Cluster has provided needs-based indicators that will be used to derive the needs severity across three dimensions (also referred to as pillars in this document and in the excel tool). This structured approach allows for a detailed and systematic analysis of protection risks and needs.

The Excel file available at this link is a comprehensive list of indicators mapped to primary and secondary protection risks, as well as associated needs dimensions. Each row in the excel represents an indicator used to derive the severity of needs in different protection contexts.

### 3.4.3. Protection needs severity process

During the HNRP stage, the protection risks that have been prioritized through earlier assessments using value judgement elicitation and convergence of evidence, guide the Protection Cluster selection of needs-based indicators. These indicators are crucial because they help quantify the severity of needs across three dimensions.

To ensure that the selection of indicators is robust and evidence-based, each indicator option is assigned

PILLAR	SECTOR / AOR	INDICATOR	QUESTION	OPTIONS
Pillar 1: SAFETY	Protection	% of HHs that have experienced movement restrictions in the last 3 months	Can people move around freely within your current location?	No freedom of movement Some restrictions No restriction
	Protection - CP	% of households with at least one child (<18) not residing in the household, by reason and average number of separated girls and boys	What are the reason(s) for why your children/child are/is not living in the household?	Left the house to engage with the army or armed groups Got separated during displacement (if displaced household) Kidnapped/abducted Missing (left and no news)
Pillar 2: PARTICIPATION IN ACTIVITIES	Protection - GBV	% of households reporting at least one female member of the household avoided areas in the community in the last 3 months, by frequency	Over the past 3 months, how often, if ever, women and girls of your household had to avoid areas of the community, such as markets and waterpoints, because of security concerns?	Always several times Just once or twice Never

preference score. Assigning preference scores involves evaluating and ranking options. Each option is assigned a score, between 1 and 3, according to importance and summing the values. This process generates numerical scores that reflect the overall performance of each indicator, aiding in ascertaining the severity of given indicator(s) within the needs dimension. This method, integral to techniques like Simple Additive Weighting

(SAW), helps identify the most favourable options efficiently.

Pillar 1: SAFETY						
% of HHs that have experienced movement restrictions in the last 3 months			% of households with at least one child (<18) not residing in the household, by reason and average number of separated girls and boys			
Can people move around freely within your current location?			What are the reason(s) for why your children/child are/is not living in the household?			
Assigning Preference Scores			Assigning Preference Scores			
3	2	0	3	1	2	2
No freedom of movement	Some restrictions	No restriction	Left the house to engage with the army or armed groups	Got separated during displacement (if displaced household)	Kidnapped/abducted	Missing (left and no news)

For each selected indicator, a final score is calculated by summing the assigned preference scores. As a next step, for each household or area, final severity score for the three needs pillars will be calculated. This calculation or aggregation can be done

using various functions such as SUM, MAX, or AVERAGE, depending on the nature of the data and the specific requirements of the analysis. The overall severity score for a given household or area is calculated using a MAX score across the 3 pillars.

At the area level, the severity by location and by population group is calculated using the 20% rule. According to this rule, the severity of an administrative unit is determined by starting at the highest level of severity (phase 5). As soon as the cumulative proportion of affected households reaches 20%, that severity level becomes the final severity classification for the given administrative location or area. This approach helps in highlighting areas with significant needs that might require urgent attention.

ADM1_pcode	ADM 1	ADM2_pcode	ADM2	Affected Population	Severity Phase 1	Severity Phase 2	Severity Phase 3	Severity Phase 4	Severity Phase 5
SS03	Jonglei	SS0304	Canal/Pigi	104,779	58%	2%	20%	20%	0%
SS03	Jonglei	SS0305	Duk	29,740	55%	8%	20%	17%	0%
SS03	Jonglei	SS0306	Fangak	58,402	53%	2%	22%	23%	0%

### 3.5. Protection People in Need (PiN)

The percentages for severity phases 3 – 5, derived at the previous step, are applied to the people exposed to risks population (referred also as affected population). **The population in severity phases 4 and 5 are categorized as Acute People in Need (PiN)**, while those in **severity phase 3 are categorized as Moderate PiN**. This distinction is vital for planning and resource allocation as it helps humanitarian actors prioritize the most vulnerable populations and ensure that the response efforts are targeted and effective.

ADM1_pcode	ADM 1	ADM2_pcode	ADM2	Affected Population	Severity Phase 1	Severity Phase 2	Severity Phase 3	Severity Phase 4	Severity Phase 5	Final Severity (population Group level)	Acute PiN severity phase (4,5)	Moderate PiN (severity phase 3)	Total PiN
SS03	Jonglei	SS0304	Canal/Pigi	104,779	58%	2%	20%	20%	0%	4	20,956	20,956	41,912
SS03	Jonglei	SS0305	Duk	29,740	55%	8%	20%	17%	0%	3	4,957	5,948	10,905
SS03	Jonglei	SS0306	Fangak	58,402	53%	2%	22%	23%	0%	4	13,627	12,654	26,281

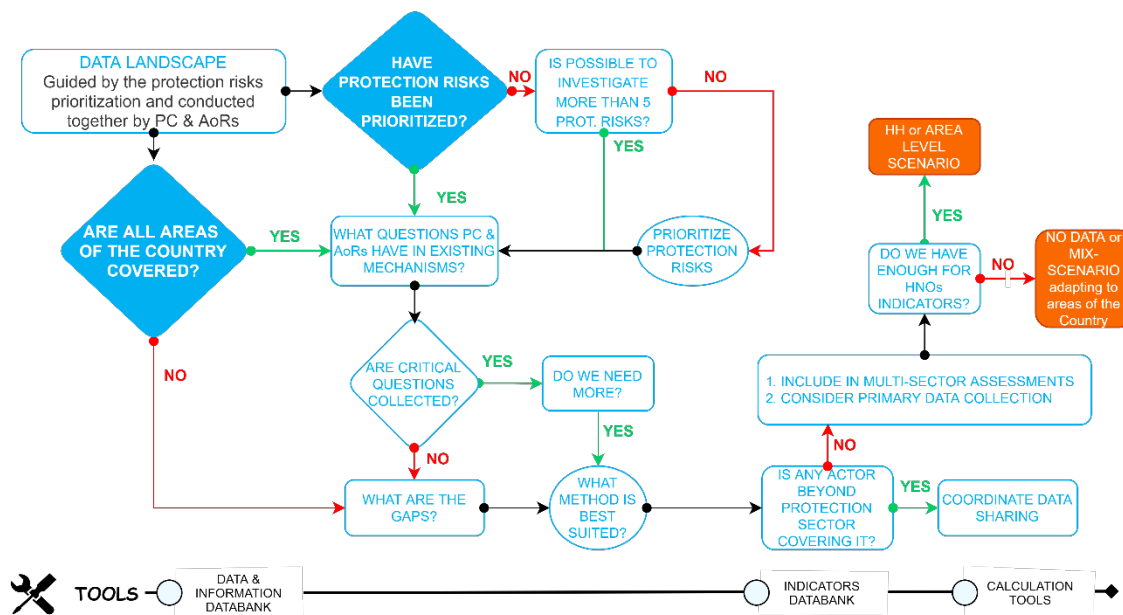
In summary, the systematic approach to assessing protection risks and needs, ensures a comprehensive and accurate analysis of the protection landscape. This analysis is crucial for informing humanitarian planning and ensuring that resources are directed towards the most urgent and severe needs.

## 4. Calculation model

To better adapt to conditions in a country, ensure flexibility and maintain consistency across countries, the calculation process has been revised with the specific goal to make use of available quantitative and qualitative information from different sources. The process is now supported by two sets of tools that include:

- **Data scenario specific tools**, which can be used by Protection and Response type to assess the data landscape in a country during the 2<sup>nd</sup> and 3<sup>rd</sup> quarter of a year and adapt the most appropriate analysis plan and value judgement processes.
- **Harmonization of Core needs indicators** Nine core indicators organized according the 15 protection risks and the 3 pillars of needs.

The process, modalities and steps must be defined in each country depending on capacities, funding and other opportunities. It is critical and important that in each country, Protection Clusters and Areas of Responsibility ensure that **no data collection assessment is carried out with the purpose of feeding HNRP, unless extremely necessary and only after having coordinated a strategic data landscape with partners and external actors**. The flowchart here below provides an indicative process rationale that can guide in the definition of data, information and indicators to calculate PIN and Severity of needs. This process must start early in the year to ensure proper streamlining across Protection Clusters, Response type and partners, and to not overburden during the needs analysis (HNRP) data calculation.



## 4.1. Scenarios according to data landscape

Data scenarios refer to the varying levels of data availability and quality that influence how Protection & Response type severities and People in Need (PiN) figures are calculated. The data calculation tools have been designed to allow adaptation in each country, according to the landscape of data available according to three different scenarios:

- **Household level.** The ideal scenario where data is available through household-level assessments such as MSNA or household-level protection monitoring. The data landscape is rich, providing detailed and specific information.
- **Area level.** A situation where data is available at the area level, gathered through key informant interviews, community-level assessments, etc. The data landscape is less rich, offering broader but less detailed information.
- **No data.** In a poor data environment where no assessments have been conducted, reliance is on value judgement elicitation and convergence of evidence to make informed decisions.

## 4.2. Household level data scenario

The tool provided, available at the [following link](#), facilitates the calculation of Protection Cluster severities and People in Need (PiN) figures at the household level. It is intended for use by protection cluster and Response type analysis teams, including IMOs, Coordinators, and Co- Coordinators. The process involves several key steps, each associated with a specific worksheet in the Excel file.

### Assigning Preference Score

Before receiving primary data, map out survey questions and responses. Assign preferred scores to sub-indicators or options of an indicator. Enter this information into the worksheet to create a scoring system based on the rank or preference of options.

### Format household dataset

Once you receive the household-level dataset, format it appropriately. Ensure the data presentation allows calculation of severity scores at the household level. Copy and paste the formatted dataset into this sheet.

### Calculate severity score at household level

Use the scores from the “Assigning Preference Scores” sheet to guide the calculation. Calculate the severity score for each selected indicator at the household level. Fill in the first few columns of this table with formulas that reference the HH dataset and align with the assigned scores.

### Calculate final severity score for each household

Aggregate the scores of selected indicators to get the final severity score for each household. This step is automated and uses formulas in the sheet.

### Calculate proportion of households under each severity score

For each administrative level and population group, calculate the percentage of households under each severity score. Fill in the table for each relevant population group.

### Calculate admin-level severity for each population group

Determine the severity phase of each unit using the 20% rule (the highest level of severity in which the sum of the proportion of households in that severity or higher is at least 20%).

### Calculate PiN figures

Insert the total affected population for each administrative level by population group (SADD disaggregation). Apply the proportion of households under each severity level. The estimated number of people under each severity level will be calculated automatically. The Acute PiN corresponds to households under severity phases 4 and 5, and the Moderate PiN corresponds to severity phase 3.

### Determine area-level severity

Select the most severe rating from all chosen population groups or compute an average severity from all groups. This calculation takes the maximum value out of the three population groups at a given administrative location. By following these steps and utilizing the appropriate worksheets, you can effectively calculate the Protection & Response type needs severities and People in Need figures. Each step in the process builds on the previous one, ensuring a comprehensive analysis.

## 4.3. Area level data scenario

This example of the tool, available at the [following link](#), facilitates the calculation of Protection Cluster severities and People in Need (PiN) figures at the area level. The working of the tool is the same as household example listed above, except that at the stage of distributing population exposed to risks across five severity phases, the Proportional Score Allocation Method is used.

This method is broadly based on principles used in statistical modelling where the distribution of a variable (in this case, population exposed to protection risks across different severity levels) is contingent upon a central metric (final severity score).

Please see the worksheet 'Proportional Score Allocation' for more information.

## 4.4. Data poor scenario

This scenario exemplifies a data-scarce environment, where no data exists to perform the protection needs severity. In such instances, we suggest using the Protection Risks prioritization score derived from the Global Protection Update data collection conducted in first or ideally second quarter of the year (June).

Utilizing the top 5 prioritized protection risks data and scores, the needs severity and subsequent PiN calculation can be done. Please have a look at the example available at the [following link](#).